FRIENDS' INTELLIGENCER.

"TAKE FAST HOLD OF INSTRUCTION; LET HER NOT GO; KEEP HER; FOR SHE IS THY LIFE."

VOL. XIX. PHILADELPHIA, FIFTH MONTH 10, 1862. No. 9.

EDITED BY AN ASSOCIATION OF FRIENDS.

PUBLISHED BY T. ELLWOOD ZELL,

Nos. 17 and 19 South Sixth Street, second floor,

PHILADELPHIA,

Every Seventh-day, at Two Dollars per annum, *payable in advance.* Three copies sent to one address for Five Dollars.

Communications must be addressed to the Publisher, free of expense, to whom all payments are to be made.

The postage on this paper, paid in advance at the office where it is received, in this State, is only 13 cents per annum; if out of the State, to any part of the United States, 26 cents.

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A Memorial of Troy Monthly Meeting, concerning our beloved friend, THANKFUL MERRITT, *deceased.*

Being deeply sensible of the loss we have sustained, in the removal from works to rewards of our beloved friend, we feel our minds engaged to give forth the following testimony concerning her.

She was the daughter of Matthew and Mercy Scott, and was born the twenty-first of Fifth-month, 1780, at Spencertown, Columbia county, State of New York. Her parents were members of the society of Presbyterians, and she was educated in their belief, and joined that society. In the year 1797 she removed with her parents to Kingsbury, in Washington county, where she was married to Benjamin Merrit, on the third of Tenth-month, 1800. She subsequently removed with her husband to reside at White Creek, within the compass of Easton Monthly Meeting, where she became acquainted with, and convinced of the truth of the principles professed by Friends; and about the year 1811 she became a member of our Society, and soon after appeared in the ministry.

In the year 1815, she removed with her husband to the city of New York.

By a strict attention to the unfoldings of truth, she learned in the school of Christ, that it is by the way of the Cross that the Crown is to be obtained, and true happiness experienced.—Thus abiding, she became qualified to instruct others, and her gift in the ministry was acknowledged by the Monthly Meeting of New York in the year 1829; and being obedient to the further manifestations of truth, she became a faithful minister of the gospel. Circumspect in life and conversation, and walking answerably to the doctrines she taught, it may truly be said she was a preacher both by example and precept.

About the year 1834, she removed with her husband to the city of Troy, where she continued to reside till the time of her death. She was a very diligent attender of meetings, and was concerned to labor faithfully in the vineyard, both at home and abroad; not considering any sacrifice too great, nor any labor too arduous, for the security of that peace she had obtained, and the favor of Him with whom are all the treasures of wisdom and knowledge.

With the concurrence of her friends she performed divers religious visits. She several times visited part of the meetings constituting New York Yearly Meeting, and twice attended Philadelphia and Baltimore Yearly Meetings. It appeared by return minutes, that these visits were to the satisfaction of Friends; and she expressed that she had witnessed great peace of mind in thus having given up to her Master's service. A friend who travelled with her in several of her religious visits, remarked, in relation to her ministry, that from meeting to meeting, there was a freshness attending her communications, comparable to the manna newly gathered for the sustenance of the day.

She felt a warm sympathy for the enslaved African race, and had such a sense of the great injustice done them, that she scrupulously abstained from using the produce of their labor, for a number of the last years of her life.

She was a good example of plainness and simplicity, to the propriety of which she bore a faithful testimony.

She frequently visited the abodes of the sick and afflicted, and, at divers times, criminals confined in prisons; often extending suitable counsel and advice, and consoling them by her soothing address, for which she was remarkable. Within the course of a few years, five of her children, in the bloom of youth, were removed by death: all of which severe deprivations she bore with Christian fortitude and resignation,—speaking at their funerals, in a calm and acquiescing spirit, of the goodness of God, and, he having given, of his right to take away.

During her last illness, she appeared tranquil and resigned, and expressed her firm reliance on a peaceful close of this life, and the joys of never ending bliss. She took frequent occasions, when the severity of her cough would permit, to address her children on important religious subjects; and one evening, near the close of her life, she told the family, then mostly collected in her room, "that having found the principles she professed, and which she had endeavored to live up to, sufficient for her, she had no new thing to recommend to them."

She departed this life on the twenty-second of Fifth-month, 1845, aged sixty-five years.

A LETTER FROM EDWARD STABLER.

Alexandria, 1st mo. 24th, 1815.

Dear Friend:—Thy letter of the 12th inst. has been duly received, and notwithstanding it gave me pleasure to find myself so kindly remembered by an absent friend, for whom I entertain so warm a regard, the mournful intelligence of which it was the bearer was deeply affecting. Such instances have indeed a tendency to produce sorrow, when we reflect upon the sphere of usefulness which appears to our limited view to be left vacant; and we are ready to inquire why is it thus, seeing the Fountain of Goodness must delight in the progress of that righteousness among his creatures of which such as these were qualified, by his own precious gifts, to become eminently the promoters?

But his ways are not our ways. Our views are necessarily limited and partial—his are perfect and comprehensive—and though for the present, while his dispensations are seen but in part, we may be at a loss to comprehend the consistency of his providence, yet in the end I have no doubt but we shall have to bear concurrent testimony with a multitude formerly, "he hath done all things well." The instance of Samson, of whom it is recorded that he slew more of the enemies of his people at his death, than in his life time, occurs so forcibly to my recollection, as illustrative of those mysterious operations, by which we are at once humbled and instructed, that I am almost persuaded to believe, that some effect analogous to it will result from the impressive incident before us.

How obvious, my friend, is the disposition among men to bear upon those in whom obedience to the pure principle has produced its blessed effects. "The priest's lips shall keep knowledge," is an old saying, but is every day new in practice. For though under the dispensation of the Gospel, we should all be "made kings and priests to God," yet how few are willing to take up the cross to the honors, the profits, and the enjoyments of this world,—so as to become truly the subjects of that dispensation, by which they would become invested with the royal authority, and clothed with the sacerdotal garments.

But too many are like those mentioned by the prophet, "the vision of all has become unto *them* as the words of a book which is sealed, which men deliver to one who is learned, saying read this, I pray thee." They see and are willing to acknowledge the good works and precious influences derived from the Fountain of Goodness, through those who are subject to his divine power, but seem to lose sight of their own inestimable privilege of becoming, through faithfulness to that which they have received made successively rulers over more, until they also "shall have abundance." This was the situation of the disciples of our divine Master, while he was personally with them—and if ever the mere beholding or witnessing the operations of the divine Spirit in another, could have wrought the redemption of those who were so favored, it would have been effectual in that instance. But we find this was not the case; on the contrary, he informed them that all dependence upon exteriors must cease before they could become partakers of that Power which they had seen in him—"It is expedient for you that I go away, for if I go not away the Comforter will not come, but if I go away I will send him unto you, even the Spirit of Truth." Now if from privations, which Friends of your city have experienced in the removal of dear M. Franklin, their minds should be happily turned with greater energy of research towards his "Father and their Father, his God and their God," there is no cause to doubt (even for a moment) that their sorrow will be turned into joy, not only that he has become one of that "innumerable multitude clothed in white robes, who shall hunger no more, neither thirst any more," but that they are more eminently partakers of the blessed overshadowing of that "power of the Highest, which is able to build them up, and give them an

inheritance amongst them who are sanctified." I shall make no apology for thus giving utterance to the feelings of my heart, to one whose views may be more expanded and more correct than my own, as I am persuaded that what is well intended will not receive a different interpretation from thy candid mind. Within the last six weeks, our city and its neighborhood have been visited with the same awful and desolating disorder, which prevailed some years past, in yours and the contiguous States. Many, very many, have fallen victims to it in different parts of the country, and I conjecture upwards of a hundred have died in this town, within the last thirty days; seven of my family have had it, but through divine favor, have all recovered. It seems for the present to be much abated in town, but whether it will be renewed again by an increase of cold weather is yet unknown. I expect, however, that it will not entirely leave us, until the weather becomes permanently warm. How powerfully do these dispensations remonstrate against our too ardent attachment to the things of time; such as this in a special manner causes the earth to tremble at its dearest point of contact, by removing our most endeared friends, and dissolving our tenderest connections.

My mind has often been in New York since my visit to you, and never without feeling an endeared solicitude for the welfare of my dear friends who are there. To such as I became personally acquainted with, I should be glad to be remembered, particularly to my kind friend and kinsman R. H. B., and his precious wife. Thy own family are included in that tender regard which is felt for and cultivated toward thyself by thy affectionate friend, E. S.

DIVINE WISDOM.

The Lord possessed me in the beginning of his way, before his works of old. I was set up from everlasting, from the beginning, or ever the earth was. When there were no depths, I was brought forth; when there were no fountains abounding with water. Before the fountains were settled; before the hills, was I brought forth: while as yet he had not made the earth, nor the fields, nor the highest part of the dust of the world. When he prepared the heavens, I was there; when he set a compass upon the face of the depth; when he established the clouds above; when he strengthened the fountains of the deep; when he gave to the sea his decree that the waters should not pass his commandment; when he appointed the foundations of the earth, then I was by him, as one brought up with him; and I was decidedly his delight, rejoicing always before him; rejoicing in the habitable part of his earth; and my delights were with the sons of men.—*Proverbs* viii. 22—31.

For Friends' Intelligencer.

REFLECTIONS ON THE RETURN OF SPRING.

Spring has again come with its cheering influence. The birds with their notes of praise; and all nature, springing forth into life, proclaim the wisdom and goodness of Him from whom we receive all our blessings: and let us, also, praise and adore his holy name. For, while man is privileged to enjoy, in their proper place, those temporal things which are designed for his comfort and use, the mind is also privileged when set free from the bondage of earth, and earthly things, by which it arises into the glorious liberty of truth, and the liberty of the children of God, to roam untrammelled amid the perfections of Deity; and herein, too, is instruction, sealed by comparisons. As we see in the outward, so does the Christian traveller spiritually experience many changing seasons. "While the earth remaineth, seedtime and harvest, cold and heat, summer and winter, day and night shall not cease;" and all are productive of much good.

"Behold, the husbandman waiteth for the precious fruit of the earth, and hath long patience for it, until he receive the early and latter rain." "Be ye, also, patient, establish your hearts, for the coming of the Lord draweth nigh." If we endure in faith and patience the wintry season, with its cold, chilling blasts and pinching frosts, we shall, in due time, realize "the winter is past, the rain is over and gone." The flowers appear on the earth; the time of the singing of birds is come, and the voice of the turtle is heard in our land. "The fig tree putteth forth her green figs, and the vines, with the tender grape, give a good smell."

And, again, by way of simile, we read: "All flesh is as grass, and all the glory of man as the flower of grass."

"The grass withereth, and the flower thereof falleth away: but the word of the Lord endureth forever."

Within the last twelve months how many ties have been severed by the cold hand of death, and loved ones parted with. Some who were, as a sheaf of corn, fully ripe, have been gathered to their eternal home; and others, in the flower of youth and prime of manhood, have been taken; but, through all probation that word which is nigh in the heart, and in the mouth, endureth; and the blessed promise remains, that "They that wait upon the Lord shall renew their strength; they shall mount up with wings as eagles; they shall run, and not be weary; they shall walk, and not faint."

Fourth mo. 17*th*, 1842. R. P.

A great poet is nothing more than the one man in a million who has the gift to express that which has been in the mind and heart of multitudes.

EXTRACT OF A LETTER FROM KANSAS TO A FRIEND IN MONTGOMERY COUNTY.

Lawrence, Kansas, March 25, 1862.

Contrabands are becoming one of the "institutions" of our town, Lawrence. As they break their fetters, they very naturally strike for the centre of abolitionism. For some months past they have been thickening our streets, filling, and even crowding our few vacant houses and rooms. The question, "What shall we do with them?" so perplexing in theoretical discussion, has become with us a practical one.

About four months since, as I was on my way to church, one Sabbath, I saw a poor, aged negro trying to spell out some simple words on a hand-bill, and as he turned away, with the tears streaming down his face, dissatisfied with his attempts, he said, "Well, I'll thank God I am *free*, if I can't read." That touched my heart, and I immediately began to reflect, and determined I would do something towards educating these refugees from slavery, and fit them for the freedom they had acquired; accordingly, I interested our Pastor and some other of my friends, and, on the Friday evening following my Sabbath evening's determination, we commenced a school, in my school-room, with three scholars, on the same principle of the Sabbath school held for them, one or two taking the general oversight, preserving order, and securing teachers, having the number of scholars divided into classes sufficiently large to occupy the time of one teacher during the evening. The school increased so rapidly that in one week my room became so crowded that we were obliged to remove to our Court House. Our citizens have been very liberal in fitting up the Court House for accommodation, but that room has now become much too small; volunteer teachers have been sufficient to supply the demand. The school is held every evening, excepting Saturday. It averages about eighty scholars, (there being sometimes over a hundred present) and twenty-seven teachers. Most of these people came among us entirely ignorant, even of their letters; they had to begin, like children, with the alphabet, but the eagerness with which they learn is exceedingly interesting and encouraging.

They seem to be *straining* forward with all their might, as if they could not learn fast enough; are like starved children seeking food. One young man, who has been but four nights, and began with the alphabet, now spells in words of two syllables. Another, in the same time, progressed so rapidly that he can read quite readily the simple lessons of the spelling book. The scholars are of all ages—here is a class of little girls, eager and restless; there is a class of grown men, solemn and earnest; a class of maidens contrasts with another of elderly women, but all intent in application. The school continues one hour, from seven to eight. After the lessons are finished, a short time is spent in singing; their wild untutored voices produce a strange but pleasing impression.

It is worth one evening to see such a sight—between eighty and one hundred scholars, just out of bondage, giving themselves intently to study, after working hard all day to earn their bread; and twenty to thirty of the most refined and cultivated ladies and gentlemen among us, laboring night after night, voluntarily and without compensation, is a sight not often seen. So, I present to you a brief history of the inauguration and conduct of the first school for Contrabands I have ever heard of in the country. We trust it will call attention in other places to the mental training of these unfortunate people, whom we believe God meant should be as free and privileged as those of our own color.

If one should give me a dish of sand, and tell me there were particles of iron in it, I might look for them with my eyes, and search for them with my clumsy fingers, and be unable to detect them; but let me take a magnet and sweep through it, and how would it draw to itself the almost invincible particles, by the mere power of attraction? The unthankful heart, like my finger in the sand, discovers no mercies; but let the thankful heart sweep through the day, and as the magnet finds the iron, so it will find in every hour some heavenly blessings; only the iron in God's sand is gold.

THE MANUFACTURE OF WINE AND CIDER.

We would call attention to the remarks of a correspondent, on the manufacture of wine and cider, by members of the Society of Friends.

It would be a sad reflection, to be brought home to the mind of any one, that they had in any degree assisted to swell the tide of intemperance that is sweeping over our land.—EDS.

For Friends' Intelligencer.

It appears to me that the Society of Friends are not only lessening their influence in the world, as a Temperance Society, by the quantity of cider manufactured and sold by its members, but are increasing the evils of intemperance, which is now so fearfully multiplying its miserable victims. My attention has been called to this subject, of late, by frequently observing at the docks and depots in our county, casks labelled "Champagne Cider," with the name of the manufacturer, often a Friend in good standing in our Society. Now, as reprehensible and inconsistent as the above practice appears to me to be, yet I am not about to censure those that see no evil in it, but simply to give my view of the subject, which I will endeavor to do in a few words:

Apples, in their natural state, are by far the most valuable if not the most delicious fruit our country affords, and should be, therefore, thankfully received; but, to extract the watery particles for the purpose of fermenting or distilling, in order to make an agreeable beverage that may increase the temptations to intemperance, is, in my estimation, converting a great blessing into a curse.

The same remarks apply with equal force to the manufacture of wine, which is increasing in this country to an alarming extent; we already see wine from Croton Point, on sale in the city of New York. I am fully convinced that total abstinence from all intoxicating drinks is our only safe abiding place. J. C.

New Rochelle, Fourth mo., 1862.

A WORD TO BOYS AND GIRLS ABOUT ORDER.

Little friends, put things right back in their proper places. Never leave things all about, helter-skelter, topsy-turvy—*never*. When you use any article—hoe, shovel, rake, pitchfork, axe, hammer, tongs, boots or shoes, books, slates, pencils, writing apparatus, pins, thimbles, pincushions, needles, work-baskets, kitchen furniture, every article of housewifery or husbandry, no matter what it is—the very *moment* you have done using it, return it to its proper place. Be sure to have a special place for everything—a place for everything, and everything in its place. Order, order, perfect order is the watchword—heaven's first law. How much precious time is saved (aside from vexation,) by observing order—systematic regularity. And little folks should begin early to preserve order in everything—form habits of order. These loose, slipshod, slatternly habits are formed in childhood, and habits once formed cling for life.

Young friends, begin early to keep things straight in their proper place; study neatness, order, economy, sobriety—everything just, honest, pure, lovely, and of good report.

"Little Things—ay, little things—
Make up the sum of life;
Then let us watch these "little things,"
And so respect each other,
That not a word, or look, or tone,
May wound a friend or brother."

—*Golden Rule.*

KEEP YOUR PROMISES.

Promises made to children should be faithfully kept. Naturally frank and ingenuous, they expect every promise to be fulfilled to the letter; and if it is not, they will not only be greatly disappointed, but their faith and trust in you will be shaken. Parents, then, can not be too faithful in keeping their promises to their children, in the most trifling matters, if they would have them frank and open-hearted. If you promise them anything, that particular thing they must have, or they are not satisfied. Besides, to give them their first lesson in distrust and suspicion, as sometimes happens with young children, is something of which I hope few parents would be guilty. You cannot, then, be too careful in making promises. Let your motto be, "Slow to promise, quick to perform," and many of the evils resulting from rash promises will be avoided.

THE BRITISH POST OFFICE REPORT.

The Post Office Annual Report is an exception to the common character of Blue Books. It is not long; it is not dull; and every year has told a tale of enlarged interest and progressive prosperity.

We learn, from the last Report, that no less than five hundred and sixty-four millions of letters were delivered in the United Kingdom in 1860. One can form no idea what is meant by so vast a number in the abstract; but when we say that, if the whole of those letters had been taken from their envelopes as so many sheets, and, once folded, laid one upon another, they would have made five thousand columns, each as high as the Monument, the reader may derive some notion of their mass. Of the whole number, more than four-fifths were for England—neither Scotland nor Ireland taking so many as one-tenth. The increase over the letters of 1859 was 19,000,000, and over those of 1839, the last year of dear postage, 488,000,000; the increase having gone on steadily since 1840. Of the 19,000,000 letters forming the increase in 1860, three and a half millions were London local letters, of which two millions were delivered in the district in which they were posted; while the entire number of letters delivered in London during the year were 137,000,000. Letters containing money ought always to be registered; and one million and a half were so registered during the year, showing an increase of six per cent. upon those registered in 1859.

People who address letters should, of course, write so as to be read; but two millions of letters were in 1860 returned to their writers, three-fourths of them (that is, as many as would, if opened, cover a pathway 190 miles long) being returned because the addresses could not be read. Ten thousand letters were in the same year posted without any address; while twenty thousand come *every day*, having on them only the name of the addressee, and the word "London." The stamps that come off the letters, owing to careless sticking on, are no less than fifty thousand, representing over £200.

In addition to the 564,000,000 of letters, there were 71,000,000 newspapers and 11,700,000 book-packets delivered in 1860, being an increase of four millions and a half, and seven

millions respectively. These were carried 144,000 miles a-day, in Britain alone, showing an increase of 400 miles on the previous year.

In the Money Order Department the total number of orders issued was 7,229,146, representing a sum of £13,858,404—England and Wales taking six-sevenths of the whole. This gives an increase of 260,038 orders, and of £607,074 over the previous year; and it shows that the increase in the demand for money orders exceeds the increase of correspondence even under a penny rate of postage. The commission received by the Post Office on the orders of the year was £121,534, and the profit they derived by the transaction of the business, after paying all expenses, was £28,474. The proportion of money orders to the population was about one order to every four persons. The number of new money order offices opened in the year was 94 in England and Wales, 18 in Ireland, and 1 in Scotland. It is known that soldiers and sailors avail themselves of the Money Order Office to transmit their earnings to their families; and they have done this to such an extent in the Mediterranean and in Canada, that measures are to be taken for affording them the same opportunities at the Cape and in Australia.

The total of the Post Office revenue in 1860, from all sources, was £3,524,710, being an increase of £83,075 on that of 1859; but owing to an abnormally increased expenditure, the net revenue was but £1,102,479, being a decrease of £33,481, compared with the preceding year. Of the expenditure, £1,066,920 was for salaries and pensions, £48,000 for railways, £170,951 for mail-carts, etc., £134,346 for miscellaneous services, and £31,438 for manufacture of postage-stamps. The total expenditure was £2,422,-231, being an increase of £110,117 over that of 1859.

The unfavorable side of the financial account is that which belongs to the colonial and foreign correspondence. While a profit is made by all the operations at home, a loss of £410,000 a-year is sustained upon the ship letters. The loss upon every letter to the Cape is 9*d.*; to the West Indies, about 1*s.*; to Western Africa, about 1*s.* 8*d.*; and to the United States, through Galway, about 6*s.*; while the loss sustained on the West Indian, Pacific, and Brazilian line, is nearly £200,000. This general loss is owing to the high rate of the contracts for carrying the mails across the seas; these contracts amount all together to £863,800, while the returns are little more than half that sum. This gives but a sorry prospect to the advocates for an ocean penny post, while it shows what a sacrifice the government is willing to make in the interest of the country's commerce.

The entire staff of officers employed by the Post Office in the British Isles amount to 25,282 men, of whom 11,889 are letter-carriers, 11,428 are postmasters, and 1634 are clerks. The staff employed in London alone number 3650; and, according to the report of the medical officer, their general health has never been so good as it was in 1860. The rheumatism has been called "the postman's disease;" but they also suffer from affections of the lungs and of the brain. By careful medical superintendence, however, they are maintained in average health, the mortality being at the low rate of 14 8 per thousand for the whole year.

The chief improvements which, in furtherance of general plans of progress, have been carried out during 1860, would appear to be the following: The inland service was extended, the number of metropolitan deliveries increased and accelerated, and the time for posting letters in the suburbs for the provincial night mails prolonged. In 700 places free deliveries were established, and in three hundred and sixty-nine more they were extended; and thirty-three places, many of them in North Wales, were provided with day mails to or from the metropolis. The day mails to the north, and also Bristol and the West of England, were accelerated, and the new Irish postal system was brought into operation. Fresh negotiations were also entered into with railway companies for the use of all their trains, and twenty-one agreements to that effect were completed. The number of travelling post offices for sorting letters upon the railways was augmented. In these travelling offices, which have been for some years in operation, much of the work which would otherwise have to be done at the stationary offices, is done by a staff of sorters, clerks, and guards, while the letters are actually travelling to their destination, and much time is consequently saved. The mailbag exchanging apparatus—another remarkable feature in the postal arrangements—has also been brought into further use during 1860. This is an ingenious contrivance by which the bag containing the letters *for* any place is exchanged for the bag containing the letters *from* that place, without the stoppage of the train. It is very easily managed by mechanical means, to the great saving of time, and at the present moment nearly five hundred such exchanges are made every twenty-four hours. While many of the old post offices in the country have been enlarged, twenty-nine new ones have been added, raising the number now in the whole kingdom to 11,141. Of the road letter boxes 515 new ones have been erected, raising the number of such conveniences to 2473. Thus the total number of the receptacles for letters of all kinds is little short of 14,000 against 4500, the number in existence before the advent of the penny post.

It is evident, from the above brief summary of facts, that the Post Office authorities spare no pains to render their system of communication, both at home and abroad, as perfect as it

can be. It is evident, also, from some of the facts above quoted, that they are not backed in their endeavors by corresponding care on the part of the public, whom they seek to benefit. People persist in misdirecting letters, in not directing letters, and in writing illegibly—and, what is more strange, will pack sums of money in letters neither directed outside nor addressed within, so that the money *cannot* be returned. There is in the head London office a functionary, jocosely termed the "blind clerk," who can decipher any scrawl that is decipherable at all, and who, every week, sends hundreds of letters to their destination, which otherwise they would never reach; but even he is defeated thousands of times in the course of the year, by the obstinate hieroglyphics of correspondents. When a letter directed to "Numforte Kwinspraid Sarvingle" comes to its right owner—the servant-girl at No. 40, Queen's Parade—we can but admire, as we scan the blotted pothooks, the ingenuity of the philologist who discovered their import, and we wonder what could possibly be the nature of the million specimens which surpassed his skill.—*Leisure Hour.*

WEAKLY YOUTHS.

Within one week, three persons have complained that their lives have been made lives of suffering, by the ignorance of parents, thus: They grew up rapidly, almost as tall at sixteen as at mature age. The rapidity of their growth was attended with great debility, while the parents judging of the ability to work by the size, required more of them than they were able to perform, and a strain was imposed upon their constitutions, which made them a wreck after; not indeed destroying life, but leaving the body a shell, and all its functions so impaired, as to their capabilities, that none of their work was well performed, resulting in disease of the whole system, making life a torture, and in one case we know of, there is a never failing reprehension of parental memory.

Persons who are healthy and hearty themselves, do not know how to sympathize with a rapidly growing child, and their complaints of weariness are unheeded, blamed or scolded at. To all parents then, especially to farmers and mechanics, we give the advice, when a child has grown up rapidly, impose but little labor, and that, never violent nor long protracted; it should be light, short, steady, not by fits and starts, never drive, always encourage, and when they go to bed at a regular, early hour, let them have all the sleep they will take, never allow them to be waked up, let nature do that, and she will do it regularly, and in due time.—*Dr. Hall.*

Pray ye that your flight be not in the winter.

It is the advantage that slower tempers have upon the men of lively parts, that though they do not lead, they will follow well and glean clean.—*Penn.*

MICROSCOPICAL INVESTIGATIONS.

For years discussions have been going on between microscopists regarding the nature of the markings on certain shells and lorica, and after the most spirited controversies many of the questions remain as far off from settlement as ever. Professor Rood, of Troy, N. Y., has proposed the investigation of such forms by means of the images they furnish of external objects. If a physicist were asked to determine whether a disc of glass was a concave or a convex lens he would not attempt to solve the question by glancing along the sides, but he would observe the images of external objects formed by it. To apply this principle Professor Rood brings his microscope to a horizontal position, and removing the mirror, supplies the illumination by a lamp placed in the axis of the compound body at a distance of not more than three inches. If now a small sphere of glass be properly supported on the stage, it forms behind itself a very minute inverted image of the flame; upon slightly drawing back the compound body this image comes into focus, and is seen in an erect position. When a rod is moved up and down between the flame and the globule, an image of it is seen in the microscope, the motion of the image following in all respects that of the hand. If, instead of the sphere, a minute concave lens, as an air-bubble in water, be used, the reverse takes place. To gain distinct vision of the flame, it becomes necessary to move the compound body within the focus, and then it is seen inverted; but, what is more important, the motion of the rod also seems reversed. It very often happens, in practically applying this method to microscopic objects, that the image of the flame is not sufficiently perfect to determine whether it is erect or inverted; the motion of the rod then is unerringly decisive. The hexagonal markings of the "Coscinodiscus triceratium," for example, have been the subject of almost interminable discussion, whether they were eminences or depressions. When fine specimens of these shells, mounted in water, are examined by a power of 800 diameters, on moving the compound body within the focus, each hexagon is seen to contain a small image of the flame, which the motion of the rod proves to be inverted, and consequently to be formed by concave lenses. As the refraction of water is less than silica, it was to be expected that in the compound lenses of silica and balsam, the latter would predominate and reverse the action, so as to present the effects of convex lenses. In experiments this is found to be the case, and in

some of the valves the eye can readily follow, in a hundred areolæ at a time, each flickering motion of the flame. Mounted in balsam of tolu, which has a still higher index of refraction, like results are obtained, all showing the areolæ to be well-formed concave lenses. Indications also have been observed which would lead to the belief that curved forms can be made out by this method, which is also very useful in determining openings from mere markings on the shells. Thus the small circles at the middle and ends of the "Pinularia virdis," which Professor Baily proved by the action of hydrofluoric acid to be really thicker, portions of the shell are shown to be convex lenses by the images they give of the flame.—*London Review.*

FRIENDS' INTELLIGENCER.

PHILADELPHIA, FIFTH MO. 10, 1862.

THE PROPOSED NEW SCHOOL.—In recurring to this subject, we are impressed with the utility of oral instruction, in preference to mere book learning. In the excellent address issued by the joint committee last year, this subject was forcibly presented, and subsequent reflection and observation have strengthened the opinion that the young are much more readily impressed with truths communicated by conversational, or even didactic discourse, than when taught in books. The enthusiasm of the teacher or lecturer, impressed with the importance of his subject aids much in riveting the attention of the learner, and the facility of illustration which this mode of instruction allows, favors a clear understanding and application of the subject presented.

While the drudgery of study is greatly lessened by this method, and learning is therefore rendered more attractive, it is more firmly fastened on the attention and memory, and therefore more readily retained.

Every parent must have noticed the eagerness with which knowledge is sought by young children before the age of going to school; few are capable of answering this craving to the extent they would desire, and yet it is often difficult to incite to the investigation of similar subjects through the methods of instruction furnished by scientific books. In large cities avenues of oral instruction are comparatively accessible to all, though we think too little relied upon as means of education for the young; but in the country they are at present quite out of the question, except in a few of the foremost boarding schools, and in some neighborhoods where lyceums are actively maintained.

If the new school proposed by Friends of Baltimore, Philadelphia and New York Yearly Meetings could be successfully established, we think one great feature which should distinguish it, should be increased attention to lecturing and conversation upon all the subjects embraced in the plan of education, forming with the study of books and periodical examinations, parts of the plan of instruction. An advantage which could be gained in a boarding school on this plan, would be, that the best teachers could be employed to lecture to the whole school, (which is to consist of both sexes), on the various subjects taught, while the examinations might be conducted in select classes by their respective subordinate or assistant teachers.—The sciences should, as far as possible, be taught also by practical or experimental as well as by theoretical instruction, thus varying the exercises of the students and removing to some extent the sedentary character of ordinary school education.

While it is of very doubtful utility to attempt a manual labor school, with a view to lessening the expense of instruction, it is undoubtedly useful to the student to vary the routine of daily studies by occasional practical operations, which impart manual dexterity, while they impress on the mind and memory leading scientific truths, and thus elevate and strengthen the intellectual powers of the student.

We remind our readers that the Philadelphia Conference, on the proposed Friends' Boarding School, adjourned last year, to meet on the Third-day evening of the coming Yearly Meeting week, at 8 o'clock, at Race street meeting-house.

A VISIT to the families of Friends within the limits of Woodbury Monthly Meeting, comprising ninety-five, a few of whom were professors, has just been performed by our friends William and Rachel Haines, under a religious concern opened in said meeting in the Second month last.

In reply to J. M., we may remark that we are not in the habit of publishing marriages accom-

plished out of the order of our Society; if such have been inserted, it has been inadvertently done.

A NUMBER of Friends *still owe* for the *eighteenth* volume of this paper—the volume which *commenced* Third month, 1861. The subscriptions should have been paid in advance at that time. Unless these delinquent subscribers settle during the present month, the publisher will be under the necessity of discontinuing their papers.

Subscriptions for the present volume are now also due, and payable at the office of the publisher, Nos. 17 and 19 South Sixth below Market st.

MARRIED,—On the 17 of Fourth month last. with the approbation of Woodbury Monthly Meeting, NATHANIEL RICHARDSON, Jr., of Byberry, to MARY K COOPER, daughter of the late Wm. E. Cooper, deceased, of Woodbury, N. J.

DIED,—On the 10th of Fourth month last, ANN C. MICKLE, in the 70th year of her age, a member of Upper Greenwich Meeting.

——, Near Mullica Hill, N. J., on the 20th of Fourth month last, SAMUEL STEWARD, in the 71st year of his age.

——, Near Woodbury, N. J , on the 30th ult , of brain fever, ELLWOOD GRISCOM STEWARD, son of Elias and Rachel Steward, in the 2d year of his age.

——, on the 25th ult., REBECCA, wife of Andrew Keyser, in the 71st year of her age.

Although a notice has appeared in the Intelligencer of the death of MACRE CROASDALE, yet I have thought it right to add something further concerning her.

She was the daughter of Jeremiah and Ann Croasdale, and was born near Attleborough, Bucks Co., in the year 1783. She gave evidence of a thoughtful turn of mind in early life, and was much inclined to meditation and reading; loving the company of serious and pious persons; her reading was mostly of a religious nature, and her delight in such reading never abated. Her eyesight entirely failed more than 12 months before her death, and she was dependant on her friends, whom she always welcomed with cheerfulness, to beguile the weary hours by reading to her, she mostly choosing the subject, or the book, which was frequently some part or chapter in the New Testament, as that was always preferred by her the latter part of her time; "*It is so beautiful*," she would say. It was now that the Christian virtues of patience and humility shone so brightly; at one time she remarked, "I feel all things closing around me, my time is short, I had not expected to have been continued to this age, and yet it seems but a little while that I have been here; I am so blessed with every thing I need, and much more than I deserve." Thus she continued patiently to wait and quietly hope; thankful for every favor, still considering herself but an unprofitable servant.

From early life she was faithful in the support of our various testimonies, and particularly so in the attendance of our meetings, also encouraging others to this important duty. Against tale-bearing and detraction, she took a decided stand, being careful not to report any thing to the disadvantage of another.

Nearly the whole of her life was spent for the good of others, without regard to pecuniary compensation, or her own comfort, preferring others to herself.

The impression of her quiet, retiring manner, is engraven on the minds of many of her relatives and friends, and the language seems to be, "go thou and do likewise," for surely her example is worthy of all praise.

During the afflicting dispensation which was permitted to attend her, she was visited by many valuable friends, as they were travelling in truth's service, with whose company she expressed great satisfaction, and encouraged them to visit others who were afflicted

She has (I believe) "gone down to the grave like a shock of corn fully ripe," retaining her religious sensibilities and her understanding until near the last. She was buried at Middletown, on her 80th birth day. S. P. F.

Makefield, Bucks County, 4th mo., 1862.

OUR COAL FORMATION.

BY CHARLES E. TOWNSEND, LONG ISLAND.

A very remarkable feature in the progress of geological science, is the retention of the old dogma of the vegetable origin of coal; especially when the necessity is admitted in support of this theory, to do such violence to nature as to presuppose the almost countless succession of rising and falling of the same land, and always out of and again into water or estuaries, to account for the successive deposit of a seam of coal and then a layer of shale; then coal and sandstone; again coal and, perhaps, ironstone; then coal, perhaps succeeded by clay or some other earthy deposit; the seams of coal varying from the thickness of a sheet of letter paper to five or six feet; and this alternation of almost innumerable deposits or seams continuing through depths in some of the coal beds of full fifteen hundred feet. It really seems incredible that such a theory based on such premised necessities should have any advocates, when, too, the additional credulity is requisite, at each upheaval, for the land to remain just long enough above water to foster an immense succession of growth and decay of vegetables on the same spot, as will, when submerged, be sufficient to produce a layer or seam of coal. And, as frequently occurs, when a layer of ironstone or gritstone is superposed, one would naturally think these would form a very unpromising surface, at the next upheaval, to foster the growth of a rank vegetation, necessary to the deposit of the succeeding seam of coal, on the same spot.

Coal seams usually vary in thickness from five to six feet, to the thinness of a sheet of paper, and this, too, of a perfect uniformity throughout. Can any reasonable person sup-

pose that such thin seams of uniform thickness found in countless numbers, could ever have resulted from the deposit of vegetable matter, which includes leaves, twigs, branches and trunks of trees of varied sizes? This alone would seem a sufficient refutation of the theory, seeing that stratification in layers of uniform thickness, could not take place from an incongruous mixture of such materials, whether collected together by the slow process of decay, or by the sudden destruction of whole vegetable areas. So, too, with the thicker layers of coal which are easily separated by cleavage into their stratifications, showing the uniform mode of depositions by a homogeneous material, into original thin layers, frequently displaying vegetable impressions between, thus showing by their cleavage a similar homogeneous origin, and an original deposition in their layers.

Vegetable impressions, so numerous in coal, are no more evidence of coal owing its origin to vegetable materials, than that similar impressions found in shale is an evidence of shale being due to vegetation. As well might it be assumed on this ground, that shells which abound in such masses in shale, or hardened mud, owes its origin to the mollusca. Vegetable impressions of leaves so found are generally only impressions, the vegetable matter having entirely decayed and disappeared, while in the more ponderous masses, such as branches and trunks commonly found in soft or bituminous coal, which has not been subjected to much heat, since its deposit, these frequently remain intact with all their vegetable organisms perfect, having been simply carbonized, or blackened by being saturated with bitumen, and thus preserved in the form of wood coal or lignite, so called; but possessing none of the properties of coal, other than the bitumen they have imbibed from the associated coal.

Now, timber so situated, one would suppose, if capable of conversion into coal, here are all the requisites for such transmutation, but not being so converted, should at least lead to doubts of its capacity to form coal, either by decay, pressure or heat. These foreign substances, trunks, branches, &c., associated with a homogeneous material which has formed coal, only seem to break the uniform continuity of the thin lamina of the coal seams, without themselves being capable of transmutation into coal.

What evidence is there that vegetation ever contained such prodigious quantities of bitumen as are found in soft coal? For analyses of coal shows much more carbon than vegetation contains. Coal also contains nitrogen, which is rarely found in vegetation. Coal contains no alkalies, and wood ashes always largely. Therefore their chemical compounds are against the theory of the vegetable origin of coal.

Coal has been uniformly deposited in estuaries, lakes or ponds, or bends in rivers, silted up by counter currents, causing the deposition of suspended sediment, or carried into deltas at the mouths of rivers, thus associating fresh and salt water deposits together; or alternately, when the seasons bring down unusual annual deposits alternating association of marine and salt water deposit in coal beds.

Bitumen is no doubt a mineral product and is frequently found associated in rocks deposited long prior to, and underlying the coal measures. It is also found associated with fossil fishes, before the existence of land vegetation, as attested by the cotemporaneous absence of such vegetable fossils or impressions.

The analysis of bituminous springs, such as naphta, petroleum, &c., are almost identical with the compounds of soft or bituminous coal.

Such springs continue to flow in numerous parts of the world, generally into estuaries, as the Trinidad, the Dead Sea, &c., and no doubt are forming coal beds in those localities at this day. These products, floated into still waters of estuaries, or silted in deltas, would gradually deposit their sediment at the bottom, in very thin layers, associated with vegetable and other foreign matter, floated with it; and in seasons of perhaps periodical preponderance of bitumen, would form the principal layer, or in the partial or perhaps entire absence for a time, of this flow of bitumen, other products of the land or sea may take preponderance, and thus account for the alternate, as well as characteristic thickness of the different layers.

The theory necessary to maintain the vegetable origin of coal draws equally hard upon the imagination as upon the common-sense view of the process of nature, which we do not see repeated in the formation of other strata, through such innumerable ups and downs. The coal beds can alone be pointed to as evidence of the assumed mass of vegetable growth, in astounding proportions, during the carboniferous era; while other cotemporaneous rocks or deposits, which must have been forming in many parts of the world where coal does not exist, do not present any unusual amount of fossil vegetation or impressions of the same to attest uniformity of production. Neither are the coal beds so numerously scattered over the world as to account for this assumed mass of vegetable growth, supposed to be general over lands elevated above the waters.

We have no objection to admit the occasional upheaval or sinking of land, throughout geological periods in different parts of the globe, as is incontestably proved to have taken place, and a necessary consequence of the formation of the globe; but what we do protest against is the almost innumerable ups and downs, claimed for local places, few and far between, to support a pet theory for the formation of coal, which has

no other likeness elsewhere, or in any of the known processes going on in the world. And another violence of nature is requisite to the support of the vegetable origin of coal, that wherever coal is found even in Melville Island, Baffin's Bay, a tropical climate is then also necessary to have existed for furnishing the requisite masses of vegetation, and this through incalculable periods of the earth's history, without any other foundation, since the land first emerged from the deep, than the local beds of coal may evidence; of course there was a time in the world's history, when the internal heat produced a high temperature to the whole surface of the ocean; and probably when this was so, the amount of vapors continually suspended in the atmosphere was too dense to admit the rays of the sun, and therefore not likely that the earth then sustained land vegetation.

We claim bituminous springs, such as naphtha, petroleum, &c., as the origin and sources of coal, without any other violence to nature than their calm subsidence in estuaries, associated or alternating with other deposits as are still in process of formation where these things prevail.

From the Scientific American.

TEA—THEINE.

Tea is said by persons familiar with the subject to be a chosen beverage of one-half of the human race, being drunk by 500,000,000 people. The peculiar principle of tea is a substance called *theine*. About three pounds of this substance are obtained in 100 pounds of tea. When taken into the human system it excites the brain to increased activity and soothes the circulating system, so that it prevents too rapid a change of the materials of the body, and thus economizes food. It is on this effect that the value of tea as an article of diet chiefly depends. Should tea, however, be taken too largely, it acts injuriously, producing trembling of the limbs, irritability of temper, and even wandering of the mind; these symptoms are produced if as much as one ounce of tea (which contains about eight grains of theine) be taken in a day. It is said that when these annoyances have been produced by a continued excess of tea, it is desirable to have recourse to cocoa for some days, when the irritable symptoms rapidly subside, and the use of tea may be resumed, care being taken to employ it in moderation. The evil effects of inordinate tea drinking do not at all detract from its utility when taken in due moderation. The circumstance that all nations, removed but one degree from absolute barbarism, employ some unintoxicating and unfermented beverage, is of itself a sufficient proof that there is in the human system a positive want of some such article of diet; and the singular fact that all the materials so employed, of which the most important are tea, coffee, chocolate, and the peculiar substance termed maté or Paraguay tea (of which about 8,000,000 lbs. are annually consumed in South America,) contain a peculiar and almost identical crystallizable substance, similar to theine, confirms this supposition.

For Friends' Intelligencer.

"LEAD ME TO THE ROCK THAT IS HIGHER THAN I."

Yes, lead us Father, to that Rock,
Which higher far ascends,
Than our frail footsteps e'er can climb,
Unless thy power attends.

But wafted upward on the wings
Of all-pervading love,
Each hindrance in our onward path
Thou 'lt aid us to remove.

Though great the height and steep the way,
Sharp thorns on every side,
Still, if unceasingly we toil,
Thou 'lt be our constant guide;

Our shield of faith, our sure defence
'Gainst foes without, within,
And as we trust alone in Thee,
Thou 'lt free from every sin.

Temptations sore may oft assail,
Affliction too may come,
And quench in clouds of midnight gloom
The light and joy of home.

But if with firm, unfaltering faith,
Our hearts still turn to Thee,
Thou 'lt temper every stormy wind,
And still the raging sea.

Then lead us, Father, to that Rock,
And safe within Thy hand,
Beneath its shadow let us rest,
When in a weary land.

Philadelphia, 4th mo. 26, 1862.

INCOMPLETENESS.

Nothing resting in its own completeness,
Can have worth or beauty: but alone
Because it leads and tends to farther sweetness,
Fuller, higher, deeper than its own.

Spring's real glory dwells not in the meaning,
Gracious though it be, of her blue hours:
But is hidden in her tender leaning
Towards the summer's richer wealth of flowers.

Dawn is fair because her mists fade slowly
Into day, which floods the world with light,
Twilight's mystery is so sweet and holy,
Just because it ends in starry night.

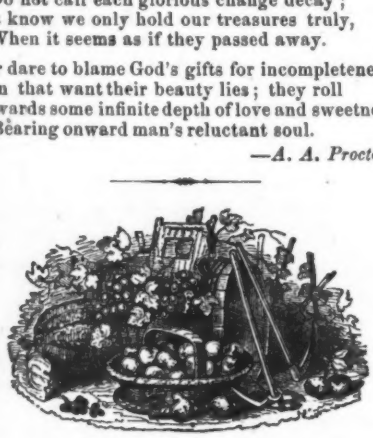
Life is only bright when it proceedeth
Towards a truer, deeper life above;
Human love is sweetest when it leadeth
To a more divine and perfect love.

Childhood's smiles unconscious graces borrow
From strife that in a far-off future lies;
And angel glances veiled now by life's sorrow,
Draw our hearts to some beloved eyes.

Learn the mystery of progression duly;
Do not call each glorious change decay;
But know we only hold our treasures truly,
When it seems as if they passed away.

Nor dare to blame God's gifts for incompleteness;
In that want their beauty lies; they roll
Towards some infinite depth of love and sweetness,
Bearing onward man's reluctant soul.

—*A. A. Proctor.*



From the Farmer and Gardener.

REMARKS ON SHRUBBERIES.

I like a shrubbery, too, it looks so fresh,
And then there's some variety about it.
In spring the lilac, and the snowball flower,
And the laburnum, with its golden strings
Waving in the wind: and when the autumn comes,
The bright red berries of the mountain ash,
With pines enough in winter to look green,
And show that something lives.

I cordially agree with the writer of the above quotation, and think that there is a great deficiency in our pleasure gardens of those continual flowering shrubs which one sees so plentifully in the gardens of nurserymen. One of the most charming objects that I have seen in a door yard was a large bed, circular in its form, completely studded with the various kinds of spireas. I did not secure a list of the varieties, but presume that it contained all that could be procured, or that were sufficiently acclimated to endure the winter. What a beautiful object, when in full flower, is the Weigelea rosea, with its branches studded thickly with blossoms. The Forsythia, the earliest of flowering shrubs, forms a yellow mass, so profuse is its blossoming. That old garden denizen, the Missouri currant, is sadly overlooked now by latter day gardeners. But in all the new additions to the garden, none can compare with it in "sweet-smelling fragrance," and indeed it is not destitute of beauty, and so far as regards flowering, is nearly equal to the Forsythia, which Downing localized as the Golden Bell. The Silver Bell is also rarely seen. I believe, too, that it is a native plant, which, with many, may not be a recommendation; for, alas, there are too many that act upon the old adage "Far-fetched fowls have feathers fair," and will prize a plant in proportion to the distance it has travelled, instead of its own intrinsic merits. The double-flowering almond, it seems to me, is gradually disappearing; but what is there more beautiful, or where is there a plant so calculated to awaken old associations of comfortable homesteads with the flower-bordered path leading to the hospitable porch?

And what, may I ask, has been found objectionable in the Lilac, that it is so rarely planted now in our modern gardens? There must be some reason, for I have observed that those who have introduced a plant of it into their new grounds, feel necessitated to apologize for its appearance, as if it were considered an evidence of bad taste to recognise that general favorite with old and young. I am one of those that think, with regard to flowers and flowering plants, that "Age cannot wither, custom cannot stale;" therefore all plants are beautiful to me for their inherent merits only, and not with reference to their date of introduction from their native wilds. But there is so much more character in a thickly set plantation of flowering shrubs, that single plants on grass beds should be abolished. I suppose that landscape gardeners will not agree with me in this proposition, but I mean to have none on my premises except they are in bed. X. Y. Z.

THE EARTHQUAKE OF LAST YEAR.

(Continued from page 128.)

A survivor thus describes his escape: "We felt the shock of an earthquake and fled to the street, I being the last. As I reached the door of the office, the earth gave so violent a shake, that the shop and office fell together, shutting me in between the walls for a quarter of an hour, suffering from the continual shocks and having no outlet. As soon as the shocks ceased, gaining strength from my fears, I made every exertion to move away the bricks which covered the door: I succeeded in turning over two bricks, and making an opening, by which I got out with much difficulty. What horror! So soon as I stood upon the ruins I looked over the city by moonlight: everything was in the dust, even the churches; not one house remained standing. Crossing the ruins towards my house, to see if I could save my family, I heard, on passing by the shop of Don Juan A. Josa, voices from below calling for help. I could not pass them. I set to work to clear off the rubbish which was above with my hands and nails, and after an hour's work succeeded in rescuing two of Josa's shopmen. We afterwards saved another who was further on, and then I went on to my house to see if I could not do the same for my family. After much trouble I found my house, and climbed on to the ruins calling for my wife and children; but none answered. I then went to the house of my son who lives in the plaza, but could not find it, such was the sameness of ruin. Don Jose de la Cruz Centeno, who was seated in the plaza,

much bruised, and who lived next door to Merceditas, showed me which was her house. I climbed over the ruins calling to her, till I reached the gable of the room where she slept, which remained standing, but leaning over most dangerously to the north. I called, and she answered me from below the ruins. I went round, and never heeding the risk, set to work to get her out, by taking off the bricks above her. Alone, bruised in spirit, and sorrowful, without tools, I raised the bricks with my hands, and discovered the head of my daughter. As soon as I had given her air, and she told me that the child she had in her arms was not dead, I called to Centeno to hire some peons, or send some who could assist me; many came, but did not dare to help me when they saw the leaning gable, which, if it fell, would bury us all together. One peon only took pity, seeing me at work alone, and after two or three hour's work removing bricks, we got out the child before it died, but it was necessary to cut off all the clothes of my daughter at the waist, and thus only we rescued her bruised and hurt. I have lost Demitita (his wife,) my daughter Adela, my son-in-law Emeterio, and my two servants. Also the uncle and aunt of my wife."

For two days such of the city authorities as survived remained paralyzed, hardly thinking their lives their own, and not attempting anything; thus the fire raged on unchecked, and the plunderers followed their work unpunished. Already the air was laden with the stench of putrifying bodies; the wounded and dying lay stretched on the ground in the open air, almost destitute of food and water, for the ordinary water-courses were swallowed up, and the market people dared not approach the town to sell, so that it seemed as though famine and pestilence would carry off those few that the earthquake and the fire had spared. The only sound which broke the silence of the desolation was the mournful tolling of a bell raised by some nuns on two posts in a meadow, where they had erected an altar and held daily services for the souls of those who had perished. Nine nuns escaped from the ruins of their convent; one after being five days buried made her way out with no other assistance than her scissors. On the twenty-third the Governor killed three bullocks, and distributed the beef, and on the twenty-fifth kindly help arrived from the city of San Juan; next day six plunderers were shot by some soldiers sent from San Juan to preserve order, so the evil was checked, and by this time also the fire had pretty well burnt itself out; but stronger and stronger rose the odor of corruption from the ruin-covered streets, till the search for any one who might yet survive was perforce suspended, and the sick under the trees in the plaza had to be removed to the alameda. For the city was become a putrid city of the dead, and living men could not dwell in its atmosphere.

So passed the weary days. Fortunately rain is a rarity in Mendoza, yet hundreds of the wounded died for want of proper attention and food; but soon from all parts came the ready offerings of sympathy and sorrow, from San Juan first, then across the Andes from Chili, then from San Guis and Cordova, and at last munificent assistance from the Central Government at Parana, and from distant Buenos Ayres. Sheds were erected and fitted up as hospitals, surgeons and physicians vied with each other in eagerness to succor and to save, so that at length many of the dying were brought back again to health and strength, and money was given to them for their sustenance during convalesence. But most of them rose from their couches only to find themselves bereft of all; everything in the city was lost, hardly the ground was left on which the houses once had stood. Even to the end of April shocks continued; generally there were two or three every day, as an English visitor writes on the twenty-second: "I am writing this in a shed, but it is all cracked, and one gable-end is down; twice I have run out. As slight shocks still continue two or three times a day, I feel afraid of the place falling." The same gentleman also writes: "It is useless attempting to describe the suffering that existed when I first arrived; I am not wanting in courage or in strength of mind to witness such scenes, but what I have seen here has completely overpowered me, and made me as inactive as a child and as powerless. The heap of ruins, the corpses strewed in all directions, stripped, and in some cases half-eaten by dogs and rats, the stench, and above all, the sufferings, and stupefaction of the survivors, are all together so appalling that only stern duty and necessity induced me to stay an hour in the place. Many wounded ladies refused to be placed under shelter, shrieking in their terror that the roofs would fall on them.

By the great earthquake on the 20th of March, several villages in the neighborhood of Mendoza were also completely destroyed. Its effects were also slightly felt at Valparaiso and other cities on the western slope of the Andes, and more distinctly at Cordova and throughout the Argentine Confederation, even so far eastward as Buenos Ayres, where, on the night of the 20th, a French watchmaker noticed that all the pendulums of his clocks, which were swinging from north to south, had become endowed with a most singularly irregular motion, concerning which phenomena, he wrote a letter on the day following to a leading journal of the city; but no explanation was given till the next week, when the mail from Mendoza brought the truth.

On the eastern slopes of the Andes, the earthquake seems to have exerted its extreme violence, as may be seen in a letter dated San Juan, 25th March, 1861: "Paula has just arrived from Chili. The earthquake which destroyed Mendoza caught her, with Corina and Emilia, at the foot of the central Cordillera of the Andes. The mercy of God has alone preserved them. It is horrible to hear their account of the fearful scene they witnessed. Deep caverns were opened into the bowels of the mountains; the mountain summits were parted asunder; the road was blocked up with rocks rolled down from above, and with the rubbish brought with them in their fall. The earth in places burst open like a bombshell, ejecting water, all the way from Uspallata. Enormous stones were thrown from one mountain to another with the report of cannon. Some passengers on the road were crushed by the falling rocks. It was a scene of indescribable horror which surrounded them; they fearing every moment that they would be buried under the rocks which came rolling down the sides of the mountain."

Professor Forbes, who had been making geological researches in Peru and Bolivia, was in Rosario at the time of the earthquake, and immediately proceeded to Mendoza, to examine the phenomena of the catastrophe, concerning which he reports somewhat as follows to the Government of the Argentine Republic, by whom he was appointed their commissioner: "Data have enabled me to arrive at the decisive conclusion that the earthquake was caused by a revival of volcanic action on the eastern side of the principal chain of the Cordilleras, and the endeavor to find outlet for the escape of gases by the fracture of supervening rocks. To examine the effects of the earthquake in the Cordilleras, I proceeded direct to the hills in front of the city, and found the stripe—the course of the earth-wave as marked on a map annexed—here marked in all directions by ruins, which track I followed up to Uspallata for six days. Within its limits rocks had been broken in pieces, and borne or thrown to other places; there were fissures in the earth, and the springs had increased their flow." Mr. Forbes also gives some practical advice concerning the rebuilding of the city. The northeast portion of the old city was built on low marshy ground, which "sunk from one to eight feet, and was torn up as though it had been ploughed for a width of about three hundred varas—about two hundred and eighty yards;—and in some places springs had come to the surface." Thus he recommends an extension of the city to the westward, on the rocky slopes of the Sierra. The old city was almost entirely built of adobes, a large thick brick, about two feet long, baked in the sun, and put together without lime, mud only being used to fill the interstices; concerning which he says: "The old system of brick houses will, of course, be rejected, nor ought the streets be so narrow as before, this having occasioned the chief loss, the hollowed walls falling into them from both sides upon the people. With broad streets, and with houses of wooden framing, filled in with lath and plaster, no danger need be feared from any subsequent earthquake."

M. Bravard, a French naturalist, resident at Mendoza, had predicted the destruction of the city by an earthquake, basing his prediction upon the volcanic formation of the province. This peculiarity is also noticed by Sir Woodbine Parish, in his valuable work on Buenos Ayres and the Argentine Provinces. Bravard perished while sitting on the corner of his bed pulling off his stockings, on the night of the 20th of March.

Mendoza was one of the most important cities of the Argentine Republic; situated at the foot of the Andes, and commanding the principal pass to Chili at Uspallata, it was the centre of all the traffic of the coast. The population was variously estimated at from fourteen to seventeen thousand, of whom not more than two thousand escaped. The loss may be estimated at thirteen thousand, which is below the number usually named by men well acquainted with the city; of these the greater part found death and burial at the same moment, but many, it is believed, languished for days, under the ruins, there being none to dig them out. A large proportion also of those who were rescued died from gangrene, before surgeons could arrive from Chili to perform the necessary amputations. All the surgeons of the city itself were killed. Numbers of children escaped, and, strange to say, nearly all the blind people! The former were taken charge of by the Chilian government, and removed to an asylum at Santiago de Chili.

To the traveller accustomed to the interminable plains of Buenos Ayres, Santa Fe, and Cordova, or wearied with the sandy deserts of San Juan, the province of Mendoza has always been a most welcome oasis on the tedious journey across the continent of South America; here he finds himself once again in an enclosed country, riding along well-kept roads, between water-courses, shaded by double rows of magnificent poplars, almost equalling in size those time-honored trees which line the banks of the sluggish canals of Belgium and the Low Countries. The rocky and volcanic nature of the soil of Mendoza has forced the inhabitants to adopt a mode of agriculture widely differing from that pursued in the other provinces of the republic; they have been forced to dig canals for the artificial irrigation of the whole of their pasturages; and, the natural grasses being very

poor, lucerne is very extensively planted throughout the province, the different fields being divided by stone fences to prevent the encroachments of cattle. All these fences were thrown down by the earthquake, and the autumn crops were entirely destroyed by straying cattle.

The city is now in process of re-building; inhabitants already pour into it from other parts, and though earthquakes become of common occurrence, they will in future be no more destructive, than they are in the wood-built cities of Chili and Peru.

REVIEW OF THE WEATHER, &c.

FOURTH MONTH.

	1861.	1862.
Rain during some portion of the 24 hours,	7 days.	8 days.
Rain all or nearly all day,	2 "	2 "
Snow, including very slight falls	3 "	2 "
Cloudy without storms,	6 "	5 "
Clear, in the ordinary acceptation of the term,	12 "	13 "
	30 "	30 "

TEMPERATURES, RAIN, DEATHS, &c.	1861.	1862.
Mean temperature of the month at Penna. Hospital,	53 deg.	51.60 deg.
Highest do. during month,	83.50 "	80 "
Lowest do. do. do.	34.50 "	31 "
Rain during the month,	3.70 inch.	4.16 in.
Deaths during the month, counting five current weeks in each year.	1155	1213 .

Average of the mean temperatures of this month, for the past seventy-three years,	51.10 deg.
Highest mean of do. during that entire period, 1826, '28, '35, '44,	56 "
Lowest do. do. 1794-98	44 "

It will be seen the temperature of the month this year did not reach that of last year, while about half an inch more rain fell during the month. And, although it is seldom we have three such days in succession as the 16th, 17th and 18th, it will also be seen that the *warmest* was exceeded last year on one day, viz., the 24th of the month, by three degrees and a half.

So much for the *heat*, now for the other extreme. The snow storm of the 8th and 9th instant, this year, was certainly remarkable, and more especially for the *quantity* remaining on the ground, tempting many lovers of *poor* sleighing to mount the polished runner. On the 14th of the month some lanes and bye-roads about twelve miles from the city remained unbroken, still reaching the top of the fences, some farmers using their fields as a highway.

And yet such things, during a long series of years, have been of frequent occurrence. Not having had time to make a thorough search of our diary, the following, included in the review of the month of last year, is again introduced:

Fourth month 26, 1858—Very cold; heavy frost at Germantown; ice one-eighth of an inch thick; ground frozen, fruit blossoms injured.

27th and 28th—Still very cold; ponds in the vicinity of the city all covered with thin ice.

24th—Severe frost in Georgia; while as a contrast on the other extreme, on the 30th the thermometer stood at 74 degrees at one o'clock in the shade.

Fourth month 24th, 1859—The only clear day in this month, so far, with the exception of the 1st and 4th instants.

21st—Very oppressive, with a sudden change in the afternoon, the mercury falling about *twenty degrees in half an hour!*

26th—Very cold; ice near a quarter of an inch thick.

30th—There have been ice and frost in four mornings of this month.

We have also for three years in succession missed our old fashioned "April snow storm." For instance we find:

Fourth month 6, 1857—Thunder and lightning, rain, hail and snow, the latter falling to the depth of from *two to three inches;* during the day the mercury fell *thirty degrees in one hour!* The whole month of that year was characterized by stormy, unpleasant weather, while at Hazleton the snow remaining on the ground on the 10th was reported to be *forty-two inches deep.* J. M. E.

Philadelphia, Fifth month 3, 1862.

THE WORKMANSHIP OF IVORY.

None of our manufacturers have yet reached the consummate skill of the Chinese artists in the workmanship of ivory, chiefly remarkable in their concentric balls, their chess pieces and models. Yet the adaptation to useful purposes of this valuable substance is fully understood by those who do not undertake to rival the exquisite minuteness of Eastern art. The manufacturers of surgical instruments are in the habit of rendering ivory flexible for use as tubes, probes, &c., by acting on the well-known fact that, when bones are subjected to the action of hydrochloric acid, the phosphate of lime, which forms one of their component parts, is extracted, and thus bones retain their original form, and acquire great flexibility. After giving the pieces of ivory their required form and polish they are steeped in acid, either pure or diluted, until they become supple and elastic, and of a slightly yellow color. In the course of drying, the ivory returns to its original hardness, but its flexibility can be easily restored by surrounding it with linen. It is now ascertained that the decay of articles in ivory can be effectually checked, even when its progress

has advanced so far as to cause the specimens to crumble away under the hands. Some of the works in ivory forwarded by Mr. Layard, from Nineveh, were found, on their arrival in England to be in a state of rapid decomposition. Professor Owen was consulted on the subject, and he suggested a remedy which, on trial, proved to be in the highest degree successful. Concluding that the decay was owing to the loss of gelatine in the ivory, he recommended that the articles should be boiled in a solution of gelatine; thus treated, they became firm and solid.

ITEMS.

Fruits.—It is said that the recent frosts in this neighborhood have not injured the fruit crops, but that all kinds, including strawberries, and raspberries, are promising.

Maple-Sugar in France.—The "Society of Acclimatization" are taking steps to introduce the sugar-maple extensively in France for sugar-making purposes. Experiments made there show a result of about one pound per tree.

In the ruins of Herculaneum the excavations are carried on actively. Toward the latter end of 12th mo. last, two lions were found in that town, half a metre long, and carved in marble. The style was Grecian, of a high order of art. Other interesting objects have been recovered, such as fragments of buried wooden furniture, chairs, boxes, coffers, constructed of bamboo or cane, grindstones, &c.

Shoddy is made of old carpets and blankets, and is frequently mixed with long wool and spun into filling. Noils is a name for the short wool which is combed from the long wool when the latter is employed for making worsted and kerseys.

Half-hardy Cotton Plant.—A Peruvian plant, erroneously called *Gossypium arboreum*, and which grows near the region of perpetual snow, is creating attention with the view to culture in the North.

According to experiments made in Paris, the pulse of a lion beats forty times a minute; that of a tiger ninety-six times; of a tapir, forty-four times; of a horse, forty times; of a wolf, forty-five times; of a fox, forty-three times; of a bear, thirty-eight times; of a monkey, forty-eight times; of an eagle, one hundred and sixty times. It was impossible to determine the beatings of the elephant's pulse. A butterfly, however, it was discovered, experienced sixty heart pulsations in a minute.

The clock on St. Paul's, London, is very large The pendulum is four feet long, and the weight at the end of it is one hundred pounds; the dial on the outside is regulated by a smaller one within; the length of the minute hand on the exterior dial is eight feet, and the weight of seventy-five pounds; the length of the hour figures is two feet and two and a half inches.

Can Snakes Poison One Another?—It is generally believed that when one venomous snake bites another its poison is just as fatal to it as to a human being. M. Guoyon, a member of the Paris Academy of Sciences, read a paper on this subject in which he contradicted this notion. He said that his attention was first directed to this subject in 1843, and since that time had made a number of experiments with serpents, and found that when they bite one another they produce common wounds, not fatal poisonous bites. He asserted that travellers who have related marvellous stories to the contrary of this, have either been mistaken or have related myths.

A machine for sole-sewing has been recently patented by a Mr. Blake of this country. "In the making of boots and shoes by this machine the sole is arranged for the 'upper' to come between the inner sole and the outer one; the boot is then placed under the machine, and without the necessity of a welt, the whole is fastened together by stitches that go through the entire thickness of soles and upper, yet so neatly as to leave no ridge to irritate a tender foot on the inside, or expose the sewing to the wear of the pavement on the outside. When it is added that a pair of soles can be sewn on and completed in three minutes, it will be seen how completely impossible it is for human labor to compete with this machine. When the machine was first invented, only the sides were sewn up, and the toes and heels were left to be pegged or nailed; now, however, by a very beautiful contrivance, the machine can be made to sew round the toe and heel of the boot with the same ease as any other part. It is calculated that a woman could superintend one of these machines, and turn out 100 pair of boots per day on an average."

Human Strength.—An active man, working to the best advantage, can raise 10lbs. ten feet in a second, for 10 hours in the day, or 100 lbs. one foot in a second. Absolute force of pressure with the hands was found by the dynanometer of Regnier to be on an average equal to 110 lbs. Absolute force of a man lifting with both hands, 286 lbs. Greatest average load which a man can support on his shoulders, for some seconds, is estimated at 330 lbs.; and it is supposed that he can exert the same force in drawing vertically downward. The mean absolute force, in drawing or pulling horizontally, is found by the dynanometer to be 110 lbs.; the force of the pull in the strongest man was found to be only 20 lbs. more than the average.

A well sunk at any point along Saginaw river, Mich., to the depth of 700 feet, will bring to the surface the strongest and purest salt brine found anywhere in the United States. It is now but two years since its discovery, and already over $200,000 have been invested in this branch of business, and new companies are forming almost daily to sink new wells and manufacture salt. The result, as proved, is, that salt can be made at 60 cents per barrel, and sold at the works at $1 30 to $2 per barrel.

PHILADELPHIA MARKETS.

Flour and Meal.—There is a firm feeling in the market for Breadstuffs, but not much doing.. The stock of Flour is gradually becoming reduced and superfine is scarce at $5 25. The only sales reported for export were good Western extra family at $5 40 per barrel, and choice extra family at $6 75 a 7. Small sales to the trade ranging from $5 25 for superfine up to $7 00 for common and fancy brands. Rye Flour is steady at $3 50, and Corn Meal at $2 62 per barrel.

Grain.—The offerings of Wheat are very small, and it is in demand at quotations. Small sales of good red at $1 35 a 1 37, and white at $1 42 a 1 45. Rye continues to command 74 cents. Corn is in active demand. Sales of yellow, afloat at 56 a 57 cents—closing at the latter rate. Oats are scarce at 40 cents per bushel, in store; 2000 bushels Delaware at 38 cents. No change in Barley or Malt.

Seeds.—Cloverseed is selling at $4 44 a $4 50 per 64 lbs. Small sales of Timothy at $1 50 a $1 75 Flaxseed comes along slowly, and commands $2 10.